



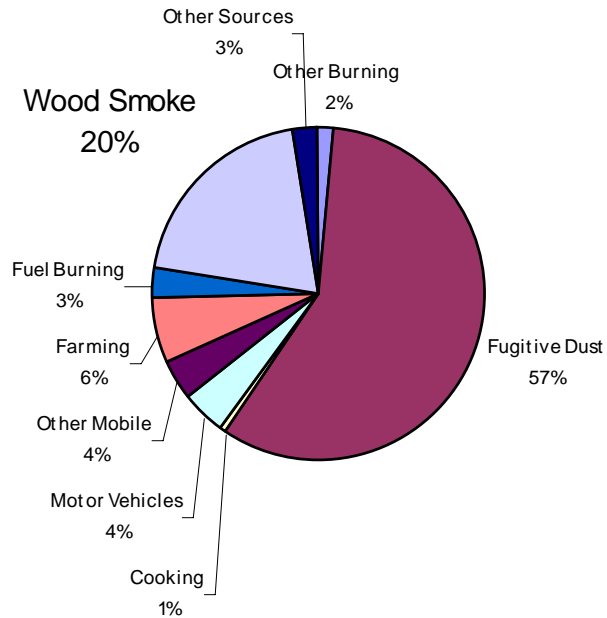
**Sacramento Metropolitan Air  
Quality Management District  
Wood Stove/Fireplace  
Change Out Program**

# Why Wood Smoke ?

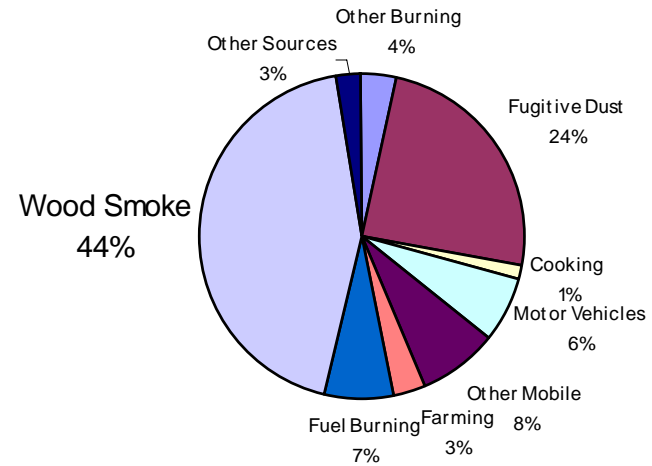
- District exceeds state's PM10 and PM2.5 standard and will most likely exceed the new federal PM2.5 standard
- California enacted SB 656 in 2003
  - Required Districts to adopt an implementation schedule for the most cost effective local PM measures that had been adopted in other areas by July 2005
- Emission Inventory/Chemical Mass Balance

# Emissions Inventory

**Sacramento County 2004  
Winter PM 10 Emissions  
(42.77 TPD)**

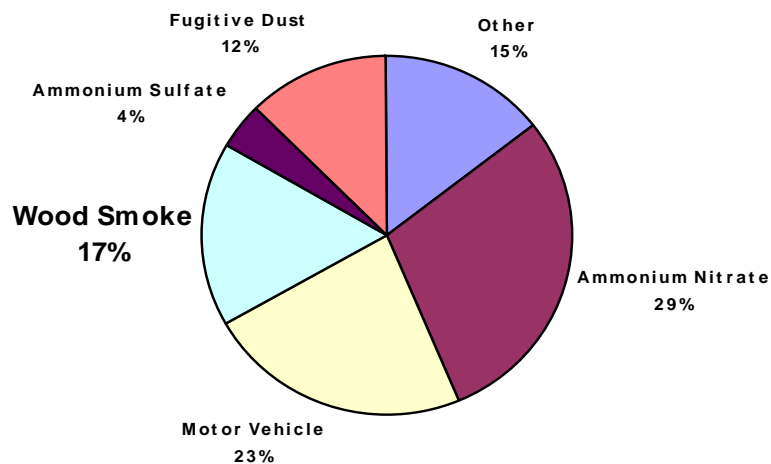


**Sacramento County 2004  
Winter PM 2.5 Emissions  
(18.85 TPD)**

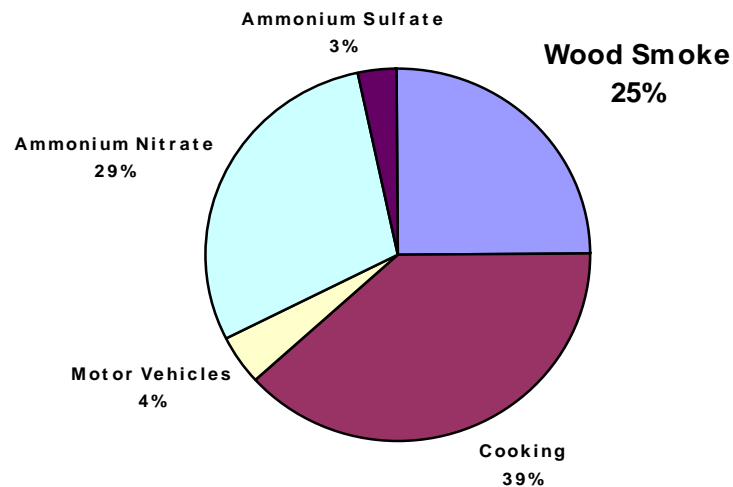


# Source Contribution from Ambient Concentrations

**PM10 Average Winter 1991-1996  
CMB Source Estimate**



**PM2.5 Average Winter 2000-2004  
CMB Source Estimate**



# Why Wood Smoke ?

- District staff ranked potential local measures based on emission reduction potential and cost effectiveness
- Identified Wood Burning Fireplace measures as first priority based on potential reductions and cost effectiveness
  - Measures include
    - incentive programs
    - public awareness programs
    - regulatory measures
      - ☒ Ban of open hearth fireplaces
      - ☐ Mandatory curtailment
      - ☐ Replace on remodel/resale
      - ☐ Further density restrictions on EPA certified devices

# Incentive Program

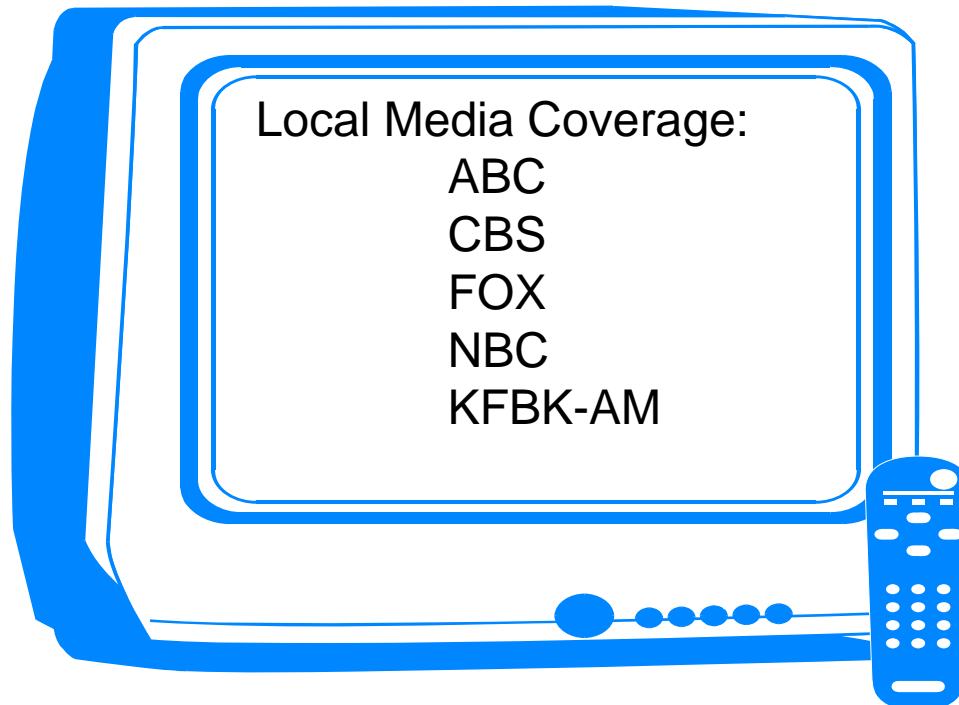
- June 2006 District Board approved an incentive program
- Included both a voucher/rebate program and a low income assistance program
- District funding allocated a total of \$1,503,136
  - Construction mitigation fees and credit loan fees
- Voucher program was done through partnership with HPBA and local retailers
- Pilot Voucher program operated August 15<sup>th</sup> through September 30<sup>th</sup>, 2006

# Voucher Program - Pilot

- Provided Cash Incentive
- Staff worked with Participating Retailers
- Price reduction was applied at time of sale for consumers with District approved vouchers
- Qualifying equipment had to be installed by 12/31/06
- A variety of outreach efforts were used

# Press Event

- August 23, 2006 at Schnitzer Steel
- Presenters:
  - Kevin McCarty, AQMD Director
  - Larry Greene, Executive Director/APCO
  - Kerry Drake, Assistant Air Director EPA Region 9
  - John Crouch, Director of Public Affairs for HPBA





# Other Outreach

- Newspaper advertising
  - Placed full page ads in three local newspapers
  - In one paper ran the ad in four different community editions
- Utility Bill inserts
  - Included an insert in utility bills that were sent out by the cities and the county

# WHERE THERE'S FIRE, THERE'S SMOKE!

**We'll pay you to replace your old, polluting wood stove or open hearth fireplace with a new, cleaner burning one – up to \$350, plus dealer incentives.**

Wood smoke from residential wood burning can harm your health and your neighbors' health. It is a common source of particulate matter pollution.

These health effects include:

- Coughing or difficulty breathing
- Aggravated asthma, emphysema and chronic bronchitis
- Aggravated heart disease
- Irregular heartbeat

**Clean up the air!  
Get your voucher today!**

CALL 916-440-WOOD (916-440-9663)  
or VISIT [www.AirQuality.org](http://www.AirQuality.org)  
or E-MAIL [woodstove@airquality.org](mailto:woodstove@airquality.org)

*A list of participating retailers is available from the Sacramento Metropolitan Air Quality Management District via phone, Web site or e-mail.*

Voucher program ends May 31, 2007.



## Changing the way you burn at home can help reduce air pollution!

Cozy fires are nice, but wood smoke produces particulate matter (PM) pollution that affects the health of your family, friends and neighbors. Children, the elderly and people with respiratory illnesses or heart disease are especially sensitive to the effects of wood smoke.

When you hear a Spare The Air advisory, don't light a fire in your fireplace, wood stove or backyard fire pit.

At other times, you can do several things to reduce wood smoke pollution:

- **Purchase a cleaner burning, low-emission hearth product**
- **Burn only dry, seasoned hardwood – it is easier to light and burns more efficiently**
- **Never burn garbage, glossy paper, painted or chemically treated wood – these products create toxic smoke and fumes**
- **Build small hot fires rather than large smoldering ones**

Health effects from breathing particulate matter pollution, especially fine particles, include:

- **Increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing**
- **Aggravated asthma**
- **Development of chronic bronchitis**
- **Irregular heartbeat**
- **Nonfatal heart attacks**
- **Premature death in people with heart or lung disease**

Particulate pollution can cause coughing, wheezing and decreased lung function even in otherwise healthy children and adults. Studies estimate that thousands of elderly people die prematurely each year from exposure to fine particles.

Visit the Sacramento Metropolitan Air Quality Management District's Web site, [www.AirQuality.org](http://www.AirQuality.org) or call 916-874-4800 for more information and opportunities for money-saving vouchers to assist you in the purchase of a low-emission hearth product.



# How Did It Go





- June 2006 Board approval for \$300,000
  - \$150,000 set aside for Environmental Justice areas
- Vouchers issued to consumers = 346
- Reimbursement requests for 240 vouchers = \$75,800
- 3.7 TPY of PM10 reduction, most of this is PM2.5

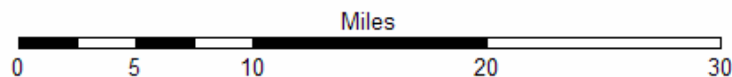
# Environmental Justice Areas in Sacramento County, CA

SACRAMENTO METROPOLITAN



**AIR QUALITY**  
MANAGEMENT DISTRICT

-  Environmental Justice Areas
-  Major Freeways
-  Major Roads
-  Railroads



Map Copyright © 2006

Street and highway data obtained from the Sacramento Area Council of Governments.  
Census data and tracts are based on the 2000 U.S. Census.

# Example Replacements



# Example Replacements



# Example Replacements



# Pilot Program Summary

	Environmental Justice Areas	Other Areas
Vouchers reimbursed = 240	78	162
Monies reimbursed = \$75,800	\$23,275	\$52,525
<b>Old Dirty Devices</b>		
Open hearth fireplaces = 189	60	129
Uncertified stoves/inserts = 51	18	33
<b>New Cleaner Devices</b>		
Wood stoves/inserts = 56	24	32
Gas inserts = 96	27	69
Pellet stoves/inserts = 80	22	58
Gas logs = 8	5	3

# Pilot Evaluation

- Program designed to be multi-year
- Environmental Justice allocation = 31%
- Solicited feedback from consumers
- Met with HPBA and local retailers before, during and after pilot program implementation
- Adjustments were proposed for:
  - Expanded outreach
  - Extended timeframes
  - Increased incentive amount for gas logs and in Environmental Justice areas

# Voucher Program Adjustments

- Outreach
  - Newspaper ads were placed in three local newspapers that ran at the beginning of the second phase
  - In addition, ran ad in the PennySaver to increase overall exposure, including Environmental Justice areas – delivered to 200,000 homes
  - Exhibit at Sacramento Home and Garden Show
  - Delivered fliers to community centers, libraries, post offices, grocery stores and markets
  - Negotiated agreement with Fox 40 to cost share in producing and airing a television spot during the month of March



# Voucher Program Adjustments

- Extension of timeframes
  - Consumers have continued to contact District
  - District's Environmental Justice assessment contractor preliminarily recommended extending program
  - Retailers concerned about extending program duration
    - their time commitment
    - without specific deadlines, consumers will not be motivated
  - Retailers agreed to extend to end of May 2007
    - Note: Manufacturers additional rebate will only be valid through March

# Voucher Program Adjustments

- Incentive Levels

- Gas logs

- Pilot program incentive = \$25
    - Need for glass doors identified
    - Increased to \$75

- Environmental Justice Areas

- Increased in these areas to increase participation
    - Increase of \$150 for inserts or stoves; and \$125 for gas logs because gas logs cost less to install



	Pilot Phase Levels	Proposed for Non-EJ Areas	Proposed for EJ Areas
Pellet or Gas Insert/Stove	\$350	\$350	\$500
Wood Insert/Stove	\$250	\$250	\$400
Gas Log	\$25	\$75	\$200

# Second Phase Voucher Program

- This phase will run February 1 – May 31, 2007
- Voucher applications as of March 1, 2007 :

	Environmental Justice Areas	Other Areas
Monies Allocated = \$93,425	\$42,100	\$51,325
Voucher Applications Received = 247	91	156
<b>Old Dirty Devices</b>		
Open hearth fireplaces = 212	71	141
Uncertified stoves/inserts = 35	20	15
<b>New Cleaner Devices</b>		
Gas or Pellet stoves/inserts = 184	60	124
Wood stoves/inserts = 60	29	31
Gas Logs = 3	2	1

# Low Income Assistance Program

- June 2006 Board reserved \$600,000 for low income assistance
- Reimburse full cost of unit/installation
- Qualification based on federal low income guidelines
- Staff identified two non-profit local groups
  - Sacramento Mutual Housing Association
    - Owns and manages low income properties
    - Interested in replacing devices in their member properties
  - Community Resource Project

### **Income Guidelines (subject to change)**

<b>Number of Persons in Household</b>	<b>Yearly Income</b>
<b>1</b>	<b>\$21,645.52</b>
<b>2</b>	<b>\$28,305.68</b>
<b>3</b>	<b>\$34,965.84</b>
<b>4</b>	<b>\$41,626.00</b>
<b>5</b>	<b>\$48,286.16</b>
<b>6</b>	<b>\$54,946.32</b>
<b>7</b>	<b>\$56,195.10</b>
<b>8</b>	<b>\$57,443.88</b>
<b>9</b>	<b>\$58,692.66</b>
<b>10</b>	<b>\$59,941.44</b>
<b>11</b>	<b>\$61,190.22</b>
<b>12</b>	<b>\$62,439.00</b>

# Community Resource Project

- Provides services to low income residents
  - Weatherization
  - Home Energy Assistance Program
  - Shade Tree
  - PG&E CARE
  - WIC
- Will provide labor costs
  - Contractors on staff
  - Have identified a funding stream
  - Attending installation training this week
- Already established outreach program

# Current Low Income Proposal

- Pay full cost of replacement device up to:
  - \$3,500 for gas insert
  - \$2,500 for wood stove/insert
- Encourage the use of gas inserts
- Will allow wood stove/insert if consumer chooses
- Require documentation, including installations are done in compliance with building codes
- Returning to Board for contract approval next week
- CRP will be using their existing database of weatherization projects to kick off this program – have already identified 175 potential low income residencies

# Next Steps

- Continue Implementing Voucher Program
  - Will assess success of second phase and make adjustments as needed
  - Continue discussions with partners – HPBA and local retailers
  - Specifically assess success in Environmental Justice Areas and make adjustments to meet this goal
- Begin implementation of low income assistance program
  - Will be identifying outreach needs for this program
- These incentive programs are just one piece of the District's overall program to address wood smoke
  - Continuing to develop and implement public awareness programs
  - Continuing to develop and propose for adoption regulatory measures including
    - Potential mandatory curtailment program
    - Require replacement on remodel/resale
    - Already adopted restriction on new open hearth fireplace – may look at further density restrictions